

## ABSTRACT

Each of terminal equipments (11, 12) and multiplexing equipments (13) transmits a synchronization control packet to an adjacent terminal equipment or relay equipment in synchronism with an own synchronization timing signal. In  
5 the wake of the synchronization control packet, each of terminal equipments and multiplexing equipments transmits information packets having a length and a number predetermined for each terminal equipment, toward an  
10 opposite terminal equipment. Each of the terminal equipments (13) temporarily holds information packets received between the current synchronization timing signal and the next synchronization timing signal, and relays the held information packets in the wake of the synchronization  
15 control packet in synchronism with the next synchronization timing signal.